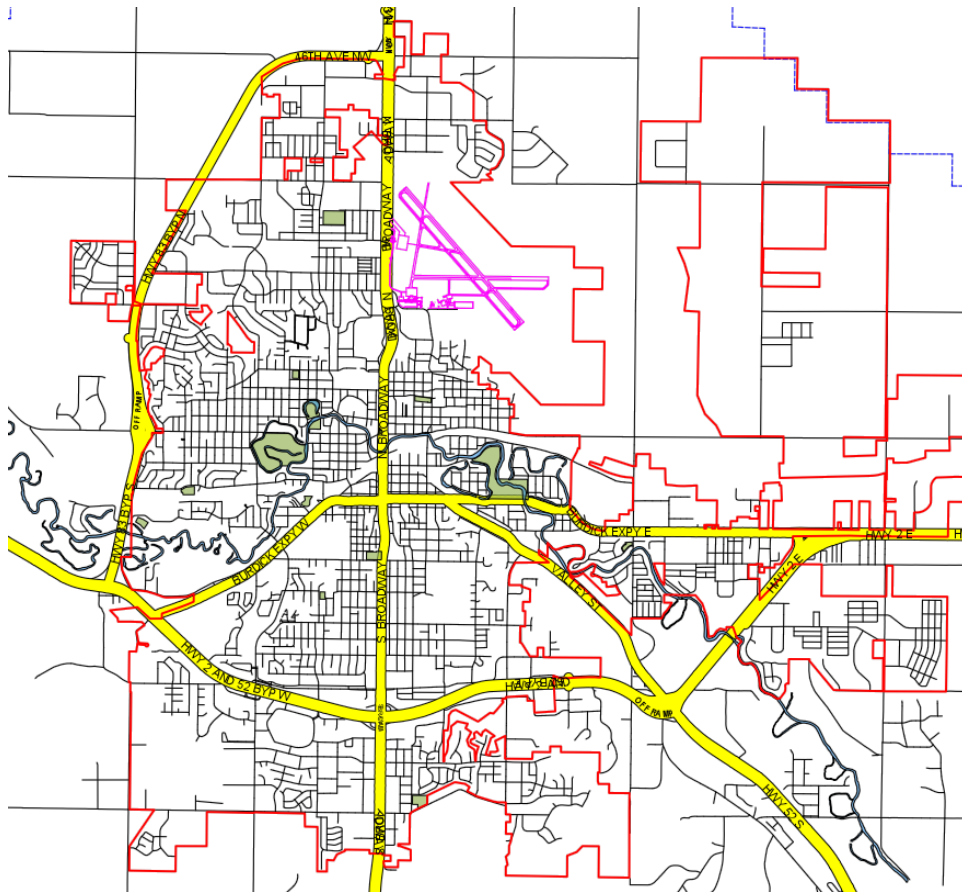




Municipal Separate Storm Sewer (MS4) Program

2018 Annual Report



Prepared For:
North Dakota Department of Health
Division of Water Quality

Permit #NDR04-0012

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OVERVIEW

The City of Minot is committed to managing storm water quality and minimizing pollution to the Souris River. The Municipal Separate Storm Sewer (MS4) Program will be a vital piece to that commitment. The City of Minot's MS4 Permit will maintain compliance with the North Dakota Department of Health by using the six Minimum Control Measures (MCMs). Each MCM will be addressed by implementing various Best Management Practices (BMPs).

MINIMUM CONTROL MEASURE 1

Public Education & Outreach on Storm Water Impacts

The purpose of this MCM is to inform individuals in the community about how their actions can impact the Souris River. By using a variety of methods and materials to educate the public, multiple audiences can be targeted to provide each citizen with relevant, helpful information. Measurable progress can be seen in the volume of information distributed, as well as the number of calls the Engineering Department receives regarding stormwater pollution prevention. The following BMPs are implemented in Minot to fulfil the requirement of this MCM.

BMP 1 – Annual Storm Water Mailing

An annual storm water brochure will be mailed to each citizen that receives a water bill in the City of Minot.

- Target Audience: General Public
- Target Pollutants: Nutrients (fertilizer & pet waste), sediment, litter, oil, yard waste
- Educational Goals: Raise awareness and understanding that one person can have on storm water quality. Encourage use of proper yard maintenance (i.e. disposal of grass clippings, fertilizer tips, etc.). Minimize litter in the storm sewer (i.e. cigarette butts)
- Responsible Department: Engineering Department. Draft of the outreach will be created each spring. Final copy ready to print by May. Water Department will mail out with the Annual Water Quality Report.
- Medium: Mail
- Performance Measures: Compost collection numbers, algae growth, number of phone calls inquiring about storm water.
- Method for Adjusting Target Audience: None, since the audience is Citywide.

BMP 2 – Storm Water Webpage

The City will maintain a Storm Water website page with pertinent storm water related information.

- Target Audience: General Public, Construction Industry
- Target Pollutants: Nutrients (fertilizer & pet waste), sediment, litter, oil, yard waste
- Educational Goals: Raise awareness and understanding. Encourage proper yard maintenance (i.e. disposal of grass clippings, fertilizer tips, etc.). Minimize litter in the storm sewer (i.e. cigarette butts)
- Responsible Department: Engineering Department will develop material to be placed on website. Public Information Officer will put content on webpage.
- Medium: Web
- Performance Measures: Compost collection numbers, number of phone calls inquiring about storm water, and number of contractors calling regarding construction storm water compliance.
- Method for Adjusting Target Audience: None, since the audience is Citywide.
- Method for Adjusting Educational Goals: As regulations change, the website will be updated as needed. It will also be updated annually to include the annual flyer sent out by mail.

BMP 3 – Public Service Announcements

As needed, public service announcements will be publicized on the City's homepage regarding yard waste disposal. Usually will occur during the fall.

- Target Audience: General Public
- Target Pollutants: Yard Waste
- Educational Goals: Encourage use of compost sites
- Responsible Department: Public Works Department. Once leaves clogging storm drain inlets become an issue, contact the Public Information Officer to release the PSA.
- Medium: Web & Facebook
- Performance Measures: Compost collection numbers and storm sewer cleaning needed.
- Method for Adjusting Target Audience: None, since the audience is Citywide.

BMP 4 – Brochures, Pamphlets and Flyers

Literature will be available to anyone visiting the Public Works Building. The information will be placed in the spindle near the front door and near the Engineering Department front desk.

- Target Audience: General Public, Commercial, Construction, MS4 Employees
- Target Pollutants: All
- Educational Goals: Raise awareness, increase understanding, open dialogue with contractors about storm water compliance.
- Responsible Department: Engineering Department.

- Medium: Flyer, Brochure, Pamphlet
- Performance Measures: Number of informational materials created and distributed, number of building permits, events that poster was displayed.
- Method for Adjusting Target Audience: If materials are not being picked up, place in a more conspicuous location for easy access.

BMP 5 – Annual Letter to Licensed City Contractors

Annually, a letter regarding storm water compliance on construction sites will be sent out to licensed contractors within the City. This letter will outline the Local, State and Federal requirements and provide City Staff contact information for inquiries about storm water erosion and sediment controls.

- Target Audience: Construction Industry
- Target Pollutants: Sediment, Oil, Litter, Concrete Washout
- Educational Goals: Encourage compliance with the NDDH Construction General Permit, encourage proper concrete washout, erosion and sediment control use and maintenance.
- Responsible Department: Engineering Department. Letter to be sent out in early spring. Inspections Department will provide list of licensed contractors and addresses.
- Medium: Mail
- Performance Measures: Number of violations issued, site inspection results.
- Method for Adjusting Target Audience: If mail does not prove useful, consider using website and email.
- Method for Adjusting Educational Goals: As regulations change, the content will be updated as needed to ensure compliance.

BMP 6 – Annual Letter to Concrete Companies

Annually, a letter regarding concrete washout will be sent to the concrete companies operating within the City of Minot.

- Target Audience: Concrete Companies
- Target Pollutants: Concrete Washout
- Educational Goals: Encourage use of leak-proof washout pits or washout boxes installed on trucks.
- Responsible Department: Engineering Department. Letter to be sent out in early spring.
- Medium: Mail
- Performance Measures: Number of violations issued, site inspection results, number of concrete washout illicit discharges.

- Method for Adjusting Target Audience: Target audience will remain the same. Any new concrete company operating within the City will be added to the mailing.
- Method for Adjusting Educational Goals: As regulations change, the content will be updated as needed to ensure compliance.

BMP 7 – Pet Waste Stations at Public Parks

Pet Waste Stations are placed by the Park District at the dog friendly parks in the City.

- Target Audience: Pet Owners
- Target Pollutants: Nutrients
- Educational Goals: Increase awareness and encourage owners to pick up pet waste.
- Responsible Department: Park District
- Medium: Sign
- Performance Measures: Number of pet waste bags taken. Amount of pet waste left behind.
- Method for Adjusting Target Audience: New stations will be installed as new parks or trails are built. Waste stations may be moved to address areas of ongoing pollution problems.

BMP 8 – Storm Drain Stenciling

A local engineering firm, Ackerman-Estvold Engineering,

- Target Audience: General Public
- Target Pollutants: Trash, Household Chemicals, Oil
- Educational Goals: Increase awareness of sources of pollution, prevent improper disposal of contaminants.
- Responsible Department: Ackerman-Estvold Engineering
- Message: Do not pollute; the storm sewer system flows directly to the Souris River.
- Medium: Paint
- Performance Measures: Number of catch basins cleaned,
- Method for Adjusting Target Audience: Additional stenciling will be done as problem locations are identified.

MINIMUM CONTROL MEASURE 2

Public Participation/Involvement

In addition to awareness, this MCM promotes action of citizens in the community. By providing opportunities for the public to get involved in storm water pollution prevention, individuals can see the way that they make a difference. The goal of public participation and involvement is to make storm water pollution prevention the responsibility of everyone in the community. The BMPs for this MCM are described below.

BMP 1 – Publicizing the MS4 Program

The MS4 Program (this document) will be placed on the City of Minot Storm Water Website. The website will ask for comment on the document and request any changes or additions from the public. Comments can be received in writing via mail, email or telephone. All comments will be reviewed by the Engineering Department prior to approval and implementation. If the comment cannot be implemented, the citizen will be notified and given an explanation.

- Target Audience: General Public, Construction Industry, Commercial and Retail, MS4 Employees
- Medium: Website
- Performance Measures: Number of comments received on the Program.

BMP 2 – Encouraging Reports from Citizens

Multiple methods of outreach will encourage the public to report any improper handling of storm water, such as introducing trash or yard waste into the storm sewer system. Citizens will be able to make a report via mail, email or telephone. All reports will be reviewed by the Engineering Department and if requested, the citizen will be contacted about resolution of the situation.

- Target Audience: General Public
- Target Pollutants: Nutrients (fertilizer & pet waste), sediment, litter, oil, yard waste
- Goals: Empower the community to take responsibility for health of the river, promote citizen involvement.
- Responsible Department: Engineering Department will receive reports and inspect reported sites
- Medium: Website, Brochures, Flyers
- Performance Measures: Number of reports received, number of actual violations found.

BMP 3 – Volunteer River Cleaning Opportunities

- Target Audience: General Public
- Target Pollutants: Litter

- Action Goals: Remove litter from the river, spread awareness.
- Message: Don't litter.
- Method for Adjusting Educational Goals: Determine from year to year if littering has been minimized by this effort.

Adopt-A-Highway - This program is sponsored and coordinated by the North Dakota Department of Transportation. Each adoptable section is about 3 miles long and must be cleaned twice per year by the adopting group.

- Responsible Department: NDDOT
- Medium: Signs placed along the Highway.
- Performance Measures: Amount of litter on the Highway.

Project CLEAN (Community Leaders Enhancing Neighborhood Areas) – This is an annual event sponsored by the Minot Chamber of Commerce that asks business to clean up the right-of-way in front of their businesses. This is conducted every spring after the snow melts.

- Target Audience: Commercial, Retail, General Public, MS4 Employees
- Responsible Department: Minot Chamber of Commerce sponsors program. All departments are encouraged to participate. Conducted in the spring after the snow melts.
- Medium: Newspaper, email, radio.
- Performance Measures: Number of trash bags handed out or number of trash bags picked up, areas of town that have been cleaned up, number of participants.

Souris River Cleanup Events - This activity will focus on cleaning up litter and debris from designated areas of the Souris River.

- Target Audience: General Public, MS4 Employees
- Responsible Department: Minot Vistas coordinate event with Friends of the Souris River. Project cost is sponsored by area businesses.
- Medium: Newspaper, Facebook & Website.
- Performance Measures: Number of garbage dumpsters removed, number of participants.

Minot Adopt-A-Trail - This program is sponsored and coordinated by the Minot Sunrise Rotary and it requires each section of trail that has been adopted to be cleaned twice per year.

- Target Audience: General Public
- Target Pollutants: Litter
- Action Goals: Remove litter and prevent future littering.
- Responsible Department: Minot Sunrise Rotary

- Message: Don't litter.
- Medium: Signs placed along trails
- Performance Measures: Amount of litter on trails, length of trails adopted.
- Method for Adjusting Educational Goals: Determine from year to year if littering has been minimized by this effort.

BMP 4 – Household Hazardous Waste Program

Annually, the City will host the event for 2 days in the spring that allows residents to dispose of hazardous waste free of charge.

- Target Audience: General Public
- Target Pollutants: Hazardous Waste
- Action Goals: Properly dispose of hazardous waste.
- Responsible Department: Public Works Department, Sanitation
- Medium: Newspaper, Website, Facebook, Radio
- Performance Measures: Amount of hazardous waste collected.

BMP 5 – Compost Collection Sites

The City Sanitation has 10 Compost Collection Sites around town to minimize improper disposal of yard waste.

- Target Audience: General Public
- Target Pollutants: Yard Waste
- Action Goals: Bring compost and yard waste to the collection sites.
- Responsible Department: Sanitation Department, compost sites are open from late April to the first snow, roughly mid-October.
- Message: Methods to properly dispose of yard waste.
- Medium: Website, Facebook, Newspaper (occasionally)
- Performance Measures: Amount of compost collected from the sites per year, number of plugged storm sewer lines due to yard waste.
- Method for Adjusting Educational Goals: Evaluate the amount of yard waste that has been collected, how many lines have been cleaned due to yard waste, how many phone calls are received about flooding due to plugged drains.

MINIMUM CONTROL MEASURE 3

Illicit Discharge Detection & Elimination

This MCM is perhaps the most critical to the immediate condition of the Souris River. An illicit discharge is defined for these purposes as disposal of a substance which can degrade the quality of storm waters, such as chemicals, petroleum based products, grass clippings, or leaves. These BMPs directly affect storm water integrity and cleanliness.

BMP 1 – Preventing Illicit Discharges

Illicit discharges will be publicized in the annual outreach that is sent to all residents that receive a water bill from the City of Minot. Contact information for the Engineering Department will be given for reporting any illicit discharges.

BMP 2 – Tracking Illicit Discharges

All illicit discharges will be investigated and a report will be created. The reports will be saved on the City's server and can be used for future repeat inspections of the site.

BMP 3 – Facility-Wide Communication

All City personnel who work in the field on a regular basis are asked to communicate with others if a concern outside of their scope of training is noticed. For example, the Street Department may inform the Engineering Department if storm water pollution is seen in an area. This is a more efficient use of resources and results in a higher rate of pollution mitigation.

BMP 4 – Enforcement Procedures for Illicit Discharges

- Information will be received by the Engineering Department via phone, email or City of Minot Webpage.
- Once received, discharge information will be documented in a report. Where, who, what, and when.
- Investigation of the illicit discharge shall be done immediately after information is received, no later than 24 hours or the next business day.
- Should a violation be found, the Engineering Department will photograph the incident, create a report and draft a letter to the responsible party. The letter will outline that remedial action within 14 days is required or a fine will be incurred.
- If the violation is a serious concern for storm water quality or no response has been received within 14 days, a fine of \$500 per violation, per day will be administered.
- The Engineering Department will notify the ND Department of Health as needed.

MINIMUM CONTROL MEASURE 4

Construction Site Storm Water Runoff Control

BMP 1 – Ordinances

- City of Minot Code of Ordinances Section 9-85 is the governing document for excavations and water runoff control. This section outlines penalties for storm water related violations. The City is capable of issuing fines of up to \$500 per violation, per day.
- City of Minot Zoning Ordinance Chapter 28.1 – Storm Water Management outlines the requirements of a storm water management plan.
- Section 28.1-24 outlines the requirements that must be fulfilled when submitting a Storm Water Management Plan. This includes: disturbed areas, locations of stockpile areas, location of all construction erosion and sediment control measures, a schedule and provisions for maintenance of erosion and sediment control measure before, during and after construction.
- Enforcement of this ordinance is outlined in Section 28.1-50, which states that building permits will be withheld until the site is in compliance. If the site is out of compliance during construction, inspections or Certificate of Occupancy will be withheld until compliance has been achieved.
- Chapter 11 of the City of Minot Storm Water Design Standards Manual outlines design requirements for temporary construction erosion and sediment controls and the requirements for the Erosion and Sediment Control Plan.

BMP 2 – Site Plan Requirements

City of Minot reviews all site plans before construction can proceed. Plans are submitted to the Engineering Department. Once all applicable fees have been paid, the review process begins. All departments (Planning, Engineering, Public Works and Traffic) have a chance to review and comment on the plan. The Engineering Department is responsible for reviewing Erosion & Sediment Control Plans.

- Each plan must include the requirements that are outlined in the North Dakota Department of Health Construction General Permit requirements.
- If the site does not satisfy those requirements, the comments are sent to the Engineer for revision.
- Erosion & Sediment Control Plan Review Items: permit application note, perimeter controls, inlet protection, concrete washout, dewatering activities, construction entrance, inspection schedule, stabilization and phasing schedule.
- A standard checklist has been created to cover all items to be included in the Erosion & Sediment Control Plan.

BMP 3 – Complaints and Concerns from the Public

In order to raise awareness about construction site runoff, the annual outreach will include the message (or similar), “Only Rain Down the Drain.” Included with that message will be Engineering Department contact information so citizens know who to call in the event of improper management of construction site storm water runoff.

The Engineering Department will be responsible for receiving all storm water related concerns. Concerns can be received via email, phone or City of Minot’s Website. Once the initial information is taken down, City Staff will investigate the concern/complaint/information within 48 hours.

- Investigation will include a site visit with the Project Manager and photos will be taken to document the violation, or lack thereof. If a violation is found, a report will be drafted to include photos of the incident.
- The Engineering Department will send a violation letter accompanied by the report to the Project Manager and/or Project Owner.
- If no response has been received within a timely manner, the City will initiate fines or up to \$500 per violation, per day.

BMP 4 – Site Inspection Procedures for Erosion & Sediment Controls

The Engineering Department is responsible for conducting Site Inspections on both private and public construction sites to ensure compliance with the North Dakota Department of Health Construction General Permit. Inspections will be conducted on an as needed basis or at random throughout the construction season.

- Once onsite, City Staff will notify the Project Manager or Superintendent of the inspection.
- Photos will be taken of all erosion and sediment control devices, documenting all features that are in compliance and in violation.
- If all items are being used correctly and there is no sign of erosion or sediment leaving the site, the inspector may occasionally acknowledge the contractor’s compliance. This encourages contractors to continue proper sediment and erosion control measures and supports cooperation with the City.
- Once the inspection has concluded, a report will be drafted. If there are corrective action items, they will be listed and sent to the Project Manager or Superintendent.
- If no action to correct the violations has been made within an allowable timeframe, a letter will be sent to the Project Manager and Project Owner. The letter will outline the potential violation and fines that could be incurred.
- If there has been no response to the letter within 14 days, the violation will be turned over to the City Attorney’s Office for corrective action.

BMP 5 – Tracking Site Inspections

- The Engineering Department is responsible for creating reports that outline the compliance of construction activities.

- Reports and accompanying photos and emails will be saved on the City's server under the Engineering Drive – Storm Water Management – Erosion Control Inspections. Each report will be saved by the date of the inspection

BMP 6 – Educating the Construction Industry on Erosion & Sediment Controls

During the annual outreach to licensed contractors, the Engineering Department will offer courtesy visits if there are questions about the ND Department of Health Construction General Permit, erosion and sediment control installation, compliance, inspection frequency, and stabilization.

- The goal is to have contractors feel comfortable enough to ask questions. This helps keep them in compliance and will help minimize inspection frequency at the construction site and violations.

BMP 7 – Single Family Residential Construction Erosion & Sediment Control Handbook

This handbook outlines the requirements for single family construction. It provides a figure that shows options for erosion and sediment controls on a single lot. This handbook will be updated as necessary and as regulations change. The document will be available at the Public Works Building and on the City of Minot website under the Storm Water Program.

MINIMUM CONTROL MEASURE 5

Post-Construction Storm Water Management for New Development & Redevelopment

BMP 1 – Storm Water Ordinance & Design Standards Manual

The City has developed a Storm Water Management Ordinance and Design Standards Manual that outlines a reasonable, manageable, and enforceable approach to controlling undesirable impacts from urban storm water runoff in an environmentally responsible manner. Any new or redeveloped multi-family residential, commercial or industrial property must comply with these requirements.

BMP 2 – Structural & Non-Structural BMP Requirements

New or redeveloped property must implement permanent storm water management facilities that produce flows that are equal to or less than the pre-developed conditions. The Storm Water Management Plan submitted to the Engineering Department will outline the location, capacity and methods for constructing the BMP's.

- The City has also updated the Storm Water Ordinance to require water quality features to be considered during design. This includes infiltration, filtration or extended detention methods to reduce pollutants in storm water.

BMP 3 – Operation & Maintenance of Storm Water Facilities

Public storm water facilities are maintained annually, or as needed, by the Street Department. Private storm water facilities are to be maintained by the owner. As of 2016, any new development must submit a signed Operation & Maintenance Plan for Storm Water Facilities. This Plan requires inspection and maintenance of the private system. If maintenance is not performed, the City has the right to inspect and maintain the facilities at the cost of the owner.

- All maintenance plans are filed on the City's server, in the file with the Storm Water Management Plan and saved in the Project File.

MINIMUM CONTROL MEASURE 6

Pollution Prevention for Municipal Operations

The City of Minot as a whole is committed to preventing pollution of the Souris River. To set a good example for the community, municipal facilities with the potential to impact storm water use multiple BMPs to control sources of possible pollution.

BMP 1 – Employee Training

- City Shop & Street Department Employees are trained on good housekeeping practices upon employment.
- Thereafter, these practices are discussed during staff meetings, at least annually.
- Employees in the shop are reminded to maintain their work station and clean up all spills using dry cleaning methods (i.e. cat litter).
- Spill kits are located near the fuel pumps at the Public Works Building.

BMP 2 – Operation & Maintenance Procedures

- The Public Works & Engineering facility has a SWPPP that is updated regularly.
- Standard Operating Procedures (SOPs) are in place for all Public Works activities that could affect storm water quality.
- Annually, 20% of storm sewer outfalls, snow disposal areas and detention ponds are inspected for signs of pollution, sedimentation, erosion, and illicit discharges.
- Each inspection location will be recorded with date, weather conditions, inspection results, photos and maintenance required. Inspection records will be kept in hard copy form at the Public Works Building and saved on the Engineering Drive on the server.
- Park and golf course maintenance are the responsibility of the Minot Park District.
- Mowing Operations – Grass clippings shall not be blown into any surface waters, catch basins, or curb and gutter.
- Street Sweepers – Sweepers run from early spring into late fall on a rotating schedule. The City has 7 street sweepers running 4 days per week, at 10 hours per day, during those months. The goal is to minimize sediment and debris entering the storm sewer system.
- Fertilizer & Pesticide Application – Fertilizer or pesticide is not to be sprayed within 48 hours of a rain event. It is also prohibited to spray these chemicals onto or near surface waters.
- Storm Sewer System Cleaning – storm sewers are cleaned on an as needed basis, more frequently in the fall when leaves can plug up drains. The goal is to minimize sediment, debris and other pollutants from entering the storm sewer system and ultimately the Souris River.
- City vehicles and equipment are regularly inspected for leaks or other needed maintenance.

- All fleet vehicle maintenance is done indoors. The building has floor drains which flow to an oil/sand separator. The separator is cleaned out annually. Additionally, the shop floor drains are directed toward the sanitary sewer system.
- Fleet vehicles are washed indoors. The drain in the floor flows to the sanitary sewer system.
- Used oil is collected and recycled in the shop.

BMP 3 – Minimizing Pollutant Exposure

- Sand & Salt Building – sand, salt and sand/salt mixtures are stored in an enclosed building to eliminate contact with storm water.
- Runoff from outdoor areas where sand and salt are mixed flows into a natural detention/infiltration area northeast of the lot.
- Snow disposal locations – snow disposal areas are not located in or near waters of the state. One location is at the Sertoma Softball Complex Parking lot. This area is gravel and utilizes infiltration. Each spring the parking lot is cleaned and trash is picked up. Another location is at the Public Works Storage yard. This area is grass and allows for infiltration of melting snow.